

Ser. No. 10/733,510

Amendments to the Claims

1. (Currently Amended) An apparatus comprising:
a body having:
first and second faces;
an inboard surface bounding a central aperture;
an outboard perimeter;
an array of bolt holes between the first and second faces;
a channel in the first face inboard of the bolt holes; and
first and second ports in communication with the channel.
2. (Canceled)
3. (Currently Amended) The apparatus of claim ~~2~~ 1 further comprising:
a sealing ring residing in an outboard portion of the channel.
4. (Original) The apparatus of claim 1 wherein:
the first and second ports are formed in the perimeter.
5. (Original) The apparatus of claim 1 wherein:
the body is a unitary metal member;
the channel is a full annulus; and
a divider member is positioned in the channel between the first and second ports.
6. (Original) The apparatus of claim 1 wherein:
the body is a unitary metal member; and
the channel has:
a full annulus outboard portion; and
a partial annulus second portion of at least 300° of arc.

Ser. No. 10/733,510

7. (Original) The apparatus of claim 1 wherein:
there are at least 8 such bolt holes.
8. (Original) The apparatus of claim 1 in combination with a flow of liquid through the channel and entering the flange through the first port and exiting the flange through the second port.
9. (Original) The apparatus of claim 1 in combination with:
a mating flange having a first face in facing relation to the first face of the body; and
a plurality of bolts, each of which extends through an associated one of the bolt holes.
10. (Original) The apparatus of claim 1 in combination with:
a furnace having a furnace wall separating a furnace exterior from a furnace interior and having a wall aperture;
a soot blower outlet assembly positioned to direct a soot blower gas flow through the wall aperture;
a soot blower gas source;
one or more soot blower gas conduit portions along a soot blower gas flowpath between the soot blower gas source and the soot blower outlet assembly, the apparatus also being positioned along the soot blower gas flowpath.
11. (Original) The combination of claim 10 wherein:
the soot blower outlet assembly extends at least partially through the furnace wall.
12. (Original) A method for operating a detonative cleaning apparatus for cleaning a surface within a vessel, the method comprising:
repeatedly:
charging a conduit with a charge; and
detonating the charge, resulting in the direction of a shockwave from an outlet portion of the conduit to impact the surface; and

Ser. No. 10/733,510

locally cooling a portion of the conduit upstream of the outlet portion.

13. (Original) The method of claim 12 wherein:
the cooling is provided via a cooling fluid;
the cooling is provided at no less than 0.1m upstream of an outlet end of the conduit and
at no less than 2m downstream of an upstream end of the conduit; and
the cooling fluid has an essentially constant flow between discharges of the apparatus.
14. (Original) The method of claim 12 wherein:
the cooling is provided via a cooling fluid; and
the cooling fluid flows along a flowpath nonintersecting with a conduit discharge
flowpath.
15. (New) An apparatus comprising:
a body having:
first and second faces;
an inboard surface bounding a central aperture;
an outboard perimeter;
an array of bolt holes between the first and second faces;
a channel inboard of the bolt holes; and
first and second ports in communication with the channel;
a first conduit having a first flange having an array of bolt holes;
a second conduit having a second flange having an array of bolt holes; and
an array of bolts, each of the bolts extending through:
an associated one of the bolt holes of the first flange;
an associated one of the bolt holes of the second flange; and
an associated one of the bolt holes of the body.
16. (New) The apparatus of claim 15 in further combination with a flow of an aqueous liquid
through the channel and entering the flange through the first port and exiting the flange through

Ser. No. 10/733,510

the second port.

17. (New) An apparatus comprising:
 - a unitary metal body having:
 - first and second faces;
 - an inboard surface bounding a central aperture;
 - an outboard perimeter;
 - an array of bolt holes between the first and second faces;
 - a channel inboard of the bolt holes and having:
 - a full annulus outboard portion; and
 - a partial annulus second portion of at least 300° of arc; and
 - first and second ports in communication with the channel.
18. (New) The apparatus of claim 17 wherein:
 - the channel is in the first face.
19. (New) The apparatus of claim 19 further comprising:
 - a sealing ring residing in an outboard portion of the channel.
20. (New) The apparatus of claim 17 wherein:
 - the first and second ports are formed in the perimeter.
21. (New) An apparatus comprising:
 - a body having:
 - first and second faces;
 - an inboard surface bounding a central aperture;
 - an outboard perimeter;
 - an array of bolt holes between the first and second faces;
 - a channel inboard of the bolt holes; and
 - first and second ports formed in the perimeter and in communication with the

Ser. No. 10/733,510

channel

22. (New) An apparatus comprising:

a unitary metal body having:

first and second faces;

an inboard surface bounding a central aperture;

an outboard perimeter;

an array of bolt holes between the first and second faces;

a full annulus channel inboard of the bolt holes; and

first and second ports in communication with the channel; and

a divider member, not unitarily formed with the body, is positioned in the channel between the first and second ports.

23. (New) An apparatus comprising:

a body having:

first and second faces;

an inboard surface bounding a central aperture;

an outboard perimeter;

an array of bolt holes between the first and second faces;

a channel inboard of the bolt holes; and

first and second ports in communication with the channel;

a furnace having a furnace wall separating a furnace exterior from a furnace interior and having a wall aperture;

a soot blower outlet assembly positioned to direct a soot blower gas flow through the wall aperture;

a soot blower gas source; and

one or more soot blower gas conduit portions along a soot blower gas flowpath between the soot blower gas source and the soot blower outlet assembly, the body also being positioned along the soot blower gas flowpath.

Ser. No. 10/733,510

24. (New) An apparatus comprising:

a body having:

first and second faces;

an inboard surface bounding a central aperture;

an outboard perimeter;

an array of bolt holes between the first and second faces;

a channel inboard of the bolt holes; and

first and second ports in communication with the channel and not in the inboard surface; and

a flow of a liquid entering the first port and exiting the second port and cooling the body.